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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,699	06/06/2005	Daisuke Ogura	Q88299	8563
23373 7590 01/30/2009				
SUGHRUE MION, PLLC				
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800				
WASHINGTON, DC 20037				
EXAMINER				
SOBUTKA, PHILIP				
ART UNIT		PAPER NUMBER		
2618				
MAIL DATE		DELIVERY MODE		
01/30/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/537,699

Applicant(s)

OGURA, DAISUKE

Examiner

PHILIP J. SOBUTKA

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-13 and 15-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-13 and 15-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/07/2008.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. Note that since the figure is described as the conventional system, it should be labeled as prior art, not merely "related" since this would cause confusion as to whether it was intended to show the instant invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1,2,5,6,8-13, 16,17, 19-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Sayers et al (US 6,539,237).

Consider claim 1. Sayers teaches a method of controlling a mobile communications system which comprises a control plane controller (i.e the network level control systems shown as NSS in Figure 1) and a plurality of user plane controllers (shown as the base station systems , BSS in figure 1)comprising:

reporting status information of said plurality of user plane controllers to said control plane controller (see for example column 5, lines 1-22, 45-65); and

causing said control plane controller to store said status information in a memory (see for example column 5, lines 1-22, 45-65);

wherein the status information includes traffic information within said plurality of user plane controllers (Note that Sayers teaches communicating traffic information as a standard feature of base station control, see for example column 1, lines 59 – column 2, line 12. Note also that Sayers teaches monitoring traffic, i.e. number of calls, column 5, lines 50-56).

Consider claim 2. Sayers teaches the method of controlling a mobile communications according to claim 1,

further comprising physically separating said plurality of user plane controllers from said control plane controller (note that Sayers user and control planes, i.e the BSS and NSS planes are physically separated as shown in figure 1).

Consider claim 5. Sayers teaches the method of controlling a mobile communications system according to claim 1, further comprising, including with said

status information alarm information detected in said plurality of user plane controllers (note that Sayers teaches the information includes alarm information see for example column 5, lines 58-60).

Consider claim 6. Sayers teaches the method of controlling a mobile communications system according to claim 1, further comprising, reporting from said plurality of user plane control means controllers said status information to said control plane controller upon receipt of a request for transmitting said status information from said control plane controller (note that Sayers teaching includes handoff and authentication which includes transmission of service request and status info between the user and control planes).

Consider claim 8. Sayers teaches the method of controlling a mobile communications system according to claim 1, further comprising, reporting from said plurality of user plane controllers said status information to said control plane controller if a change is found in said status information (note that Sayers teaching includes handoff and authentication which includes transmission of service request and status info between the user and control planes).

Consider claim 9. Sayers teaches a method of controlling a mobile communications system which comprises a control plane controller (i.e the network level control systems shown as NSS in Figure 1), a first and a second user plane controllers (shown as the base station systems , BSS in figure 1), a first radio base

station belonging to said first user plane controller, and a second radio base station belonging to said second user plane controller, comprising:

reporting from said first user plane controller first status information of said first user plane controller to said control plane controller (see column 1, line 59 – column 2, line 12);

reporting from said second user plane controller second status information of said second user plane controller to said control plane controller (see column 1, line 59 – column 2, line 12);

causing said control plane controller to store said first status information and said second status information in a memory (see for example column 5, lines 1-22, 45-65), and

when user equipment located in a first area of said first radio base station having a first link to said first user plane controller moves to a second area of said second radio base station, reading out from said control plane controller said second status information from said memory (see column 1, line 59 – column 2, line 12); and

determining at said control plane controller, based on said second status information, whether or not a second radio link can be added at said second user plane controller (see column 1, line 59 – column 2, line 12).

Consider claim 10. Sayers teaches the method of controlling a mobile communications system according to claim 9, further comprising: instructing from said control plane controller said second user plane controller through said first user plane

controller to add said second radio link to said second radio base station (see column 1, line 59 – column 2, line 12).

Consider claim 11. Sayers teaches a method of controlling a mobile communications system which comprises a plurality of control plane controllers (i.e the network level control systems shown as NSS in Figure 1) and a user plane controller (shown as the base station systems , BSS in figure 1), comprising:

reporting from said user plane controller status information of said user plane controller to said plurality of control plane controllers (see for example column 5, lines 1-22, 45-65); and

storing at said plurality of control plane controllers said status information in a memory of each of said plurality of control plane controllers (see for example column 5, lines 1-22, 45-65).

Consider claim 12. Sayers teaches a mobile communications system comprising: a plurality of user plane controllers, for reporting status information of said plurality of user plane controllers to a control plane controller (shown as the base station systems , BSS in figure 1), and

a control plane controller for storing said status information in a memory (i.e the network level control systems shown as NSS in Figure 1, column 5, lines 1-22, 45-65);

wherein the status information includes traffic information within said plurality of user plane controllers (Note that Sayers teaches communicating traffic information as a

standard feature of base station control, see for example column 1, lines 59 – column 2, line 12. Note also that Sayers teaches monitoring traffic, i.e. number of calls, column 5, lines 50-56).

Consider claim 13. Sayers teaches the mobile communications system according to claim 12, wherein said plurality of user plane controllers are physically separated from said control plane controller (note that Sayers user and control planes, i.e the BSS and NSS planes are physically separated as shown in figure 1).

Consider claim 16. Sayers teaches the mobile communications system according to claim 12, wherein said status information includes alarm information detected in said plurality of user plane controllers. (note that Sayers teaches the information includes alarm information see for example column 5, lines 58-60)

Consider claim 17. Sayers teaches the mobile communications system according to claim 12, wherein said plurality of user plane controllers further includes means for reporting said status information to said control plane controller upon receipt of a request for transmitting said status information from said control plane controller. (note that Sayers teaching includes handoff and authentication which includes transmission of service request and status info between the user and control planes)

Consider claim 19. Sayers teaches the mobile communications system according to claim 12, wherein said plurality of user plane controllers further includes means for reporting said status information to said control plane controller if a change is found in said status information (note that Sayers teaching includes handoff and authentication

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which includes transmission of service request and status info between the user and control planes).

Consider claim 20. Sayers teaches the mobile communications system according to claim 12, further comprising: user equipment (Note that Sayers teaches user equipment, see figure 1).

Consider claim 21. Sayers teaches a mobile communication system comprising:
a control plane controller for storing first status information and second status information in a memory (i.e the network level control systems shown as NSS in Figure 1);

a first user plane controller for reporting a first status information of said first user plane controller to said control plane controller (shown as the base station systems , BSS in figure 1);

a second user plane controller for reporting a second status information of said second user plane controller to said control plane controller (shown as the base station systems , BSS in figure 1);

a first radio base station that belongs to said first user plane controller (shown as the base station systems , BSS in figure 1); and

a second radio base station that belongs to said second user plane controller (shown as the base station systems , BSS in figure 1);

wherein said control plane controller stores

said control plane controller including means for reading out said second status information from said memory, when user equipment located in a first area of said first radio base station having a first link to said first user plane controller moves to a second area of said second radio base station (see column 1, line 59 – column 2, line 12), and

said control plane controller including means for determining based on said second status information, whether or not a second radio link can be added at said second user plane controller (see column 1, line 59 – column 2, line 12, column 5, lines 1-22, 45-65).

Consider claim 22. Sayers teaches the mobile communications system according to claim 21, wherein said control plane controller includes means for instructing said second user plane controller through said first user plane controller to add said second radio link to said second radio base station (see column 1, line 59 – column 2, line 12, column 5, lines 1-22, 45-65).

Consider claim 23. Sayers teaches a mobile communications system comprising: a plurality of control plane controllers for storing status information in a memory (i.e the network level control systems shown as NSS in Figure 1); and a user plane controller for reporting status information of said user plane controller to said plurality of control plane controllers (shown as the base station systems , BSS in figure 1, column 5, lines 1-22, 45-65).

Consider claim 24. Sayers teaches the mobile communications system according to claim 23, comprising: user equipment (shown as the base station systems , BSS in figure 1).

Consider claim 25. Sayers teaches the radio access network according to claim 14, including means for operating said control plane controller when user equipment located in an area of a first radio base station having a radio link established between said first radio base station and a first user plane controller subordinate to said control plane controller moves to an area of a second radio base station, said second radio base station belonging to second user plane controller subordinate to another control plane controller, to refer to this other control plane controller for status information of said second user plane controller, and determining based on the status information of said second user plane controller that is received from this other control plane controller whether or not a radio link can be added at said second user plane controller (i.e. hand-off, see column 1, line 59 – column 2, line 12, column 5, lines 1-22, 45-65).

Consider claim 26. Sayers teaches the radio access network according to claim 25, wherein said control plane controller includes means for instructing said second user plane controller through said first user plane controller to add a radio link between said second user plane controller and said second radio base station when said control plane controller determines that a radio link can be added at said second user plane controller (see column 1, line 59 – column 2, line 12, column 5, lines 1-22, 45-65).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 4,7,15,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sayers.

Consider claim 4. Sayers teaches the method of controlling a mobile communications system according to claim 1, but lacks a teaching of the method further comprising, including with said status information bandwidth information of a channel directed to the outside from said plurality of user plane controllers. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56.

Official notice is taken that bandwidth is a notoriously well known aspect of performance. Therefore it would have been obvious to one of ordinary skill in the art to also monitor bandwidth in order to provide a more complete picture of performance.

Consider claim 7. Sayers teaches the method of controlling a mobile communications system according to claim 1, but lacks a teaching of the method further comprising, reporting from said plurality of user plane controllers said status information to said control plane controller at a fixed period. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56. Official notice is taken that fixed period reporting of status is a notoriously well known in the art. Therefore it would have been obvious to one of ordinary skill in the art to modify Sayers to report status at fixed times in order to ensure that performance was monitored at minimum times.

Consider claim 15. Sayers teaches the mobile communications system according to claim 12, but lacks a teaching of the method wherein said status information includes bandwidth information of a channel directed to the outside from said plurality of user plane controllers. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56. Official notice is taken that bandwidth is a notoriously well known aspect of performance. Therefore it would have been obvious to one of ordinary skill in the art to also monitor bandwidth in order to provide a more complete picture of performance.

Consider claim 18. Sayers teaches the mobile communications system according to claim 12, but lacks a teaching of the method wherein said plurality of user plane controllers further includes means for reporting said status information to said control plane controller at a fixed period. Note that Sayers teaches monitoring various performance aspects, as described in column 5, lines 50-56. Official notice is taken that fixed period reporting of status is a notoriously well known in the art. Therefore it would have been obvious to one of ordinary skill in the art to modify Sayers to report status at fixed times in order to that performance was monitored at minimum times.

Response to Amendment

8. Applicant's arguments filed November 10, 2008 have been fully considered but they are not persuasive.
9. Regarding claim 1, applicant alleges that Sayers base stations would not communicate traffic information; however, as is now noted in the rejection, Sayers clearly teaches the base station communicating traffic information. It should also be noted that even if lacking this explicit reference to "traffic, since the base stations in Sayers arrangement are under the control of the higher level, information regarding the ongoing communications, i.e. traffic information would be exchanged with the control level.

Regarding claim 9, applicant argues that Sayers handoff would not be based on status information. As is well known, conventional handoff is inherently based on based on status information,, such as signal strength, channel availability, etc. else a handoff

might end up in a dropped call. Specifically Sayers describes using traffic status information, see for example column 1, lines 59 – column 2, line 12.

10. Regarding claim 11, applicant argues that Sayers does not teach a plurality of plane controllers, however as shown in figure 1, block NSS and described in column 9, lines 10-25, the network control level is comprised of several controllers, at least the MSC, AUC, OMC-R and –S.

Conclusion

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177.

15. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip J Sobutka/

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Primary Examiner, Art Unit 2618

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